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## AMMUNITION BULLETIN Nº 10.

FOR INSPECTING ORDNANCE OFFICERS.

13 JUN 1940

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CHIEF INSPECTOR OF ARMAMENTS,  
WOOLWICH, S.E. 18.



SECURITY.

AMMUNITION BULLETIN NO. 10.  
for Inspecting Ordnance Officers.

Issued .. June, 1940.

Issued by -  
Chief Inspector of Armaments,  
Woolwich.

Contents:-

- 93. Pyrotechnic stores. Various details.
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# DETAILS OF VARIOUS PYROTECHNIC STORES.

93.

CALIBRE	APPROX: WEIGHT OF COMPLETE CARTRIDGE.	APPROX: LENGTH OF CARTRIDGE.	APPROX: LENGTH OF CARTRIDGE IN PACKING TUBE	PROPELLANT NATURE AND WEIGHT.	
	OUNCES.	INCHES.	INCHES.	NATURE	GRAINS.
CARTRIDGE SIGNAL G.R. 1½ INCH TYPE .1.	8	4.95	5.15	GUNPOWDER	31
" 2	8¼	4.85	5.15	"	"
" 3	9¼	5.55	5.75	"	"
" 4	9¼	5.75	5.95	"	"
" 5	4½	3.85	3.9	"	"
" 6	4½	3.85	3.9	"	"
" 7	5¾	3.85	3.9	"	"
" 8	5¾	3.85	3.9	"	"
" 9	7	4.55	4.75	"	"
" 10	7	4.55	4.75	"	"
" 11	6¾	4.55	4.75	"	"
" 12.	6¾	4.55	4.75	"	"

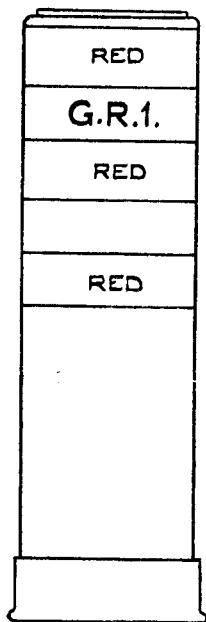
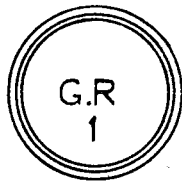
NOTE :- FOR DISTINCTIVE MARKING ON  
CARTRIDGE SEE ITEM. 94.

CALIBRE	APPROX: WEIGHT.		APPROX: LENGTH IN INCHES	APPROX: DIA.	ESTIMATED WEIGHT & NATURE OF BURSTING CHARGE		DISTINGUISHING MARKING ON STORE.
	LB.	OZ.			NATURE.	GRAINS	
FLARE, AIRCRAFT RECONNAISSANCE TRAINING, 4 INCH, SINGLE CANDLE, MK III, WITH 11 FT. MK. IV PARACHUTE.	20	-	28.7	6.2	G. 20.	7½	EXTERIOR OF FLARE PAINTED BLACK. ½ INCH RED BAND PAINTED AROUND BODY 1.75 INCH FROM NOSE END. STENCILLING ON BODY IN WHITE:- TRAINING SINGLE WEIGHT OF FLARE COMPOSITION NUMBER
MARKER, SEA, ALUMINIUM, MK. III.	10	7½	23.12	4.37	DETONATOR, BURSTER, A/C BOMB Nº 28 MK. I CE. PELLETS. FULMINATE OF MERCURY	43 10	EXTERIOR OF MARKER EXCEPT NOSE, PAINTED WITH ALUMINIUM PAINT.

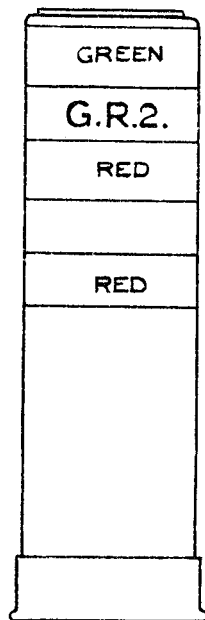
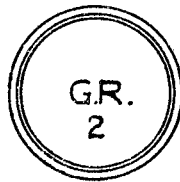
# CARTRIDGES, SIGNAL,

## DISTINCTIVE COLOUR BANDING

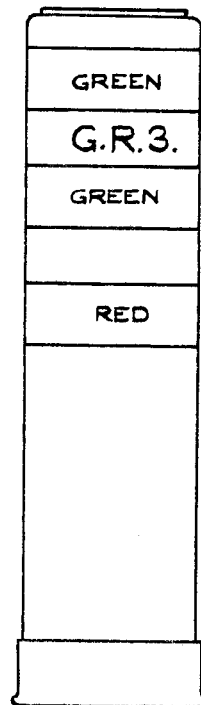
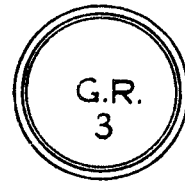
94.



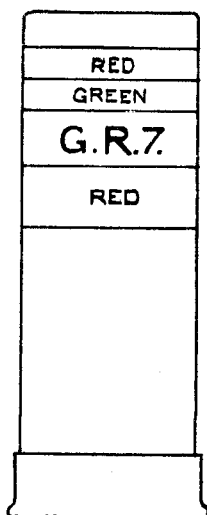
TYPE.1.



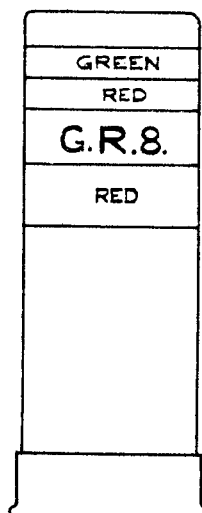
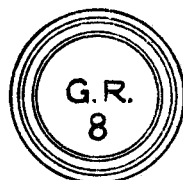
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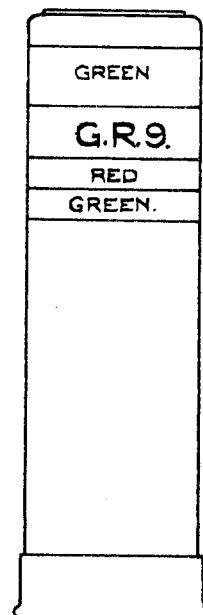
TYPE.3.



TYPE.7



TYPE.8.

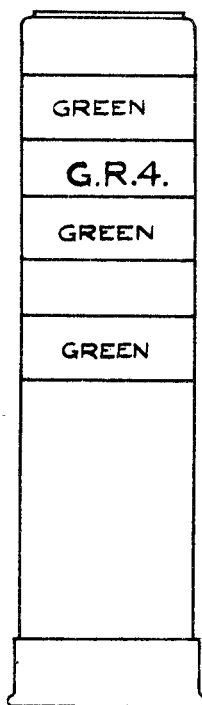


TYPE.9.

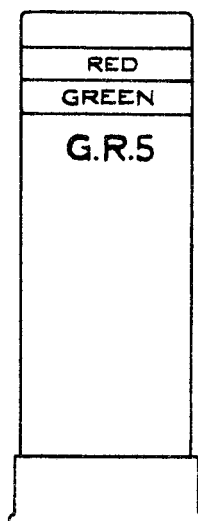
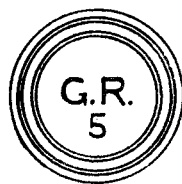
MARKING ON BANDING IN BLACK.

# G.R. 1½ INCH. TYPES I-12.

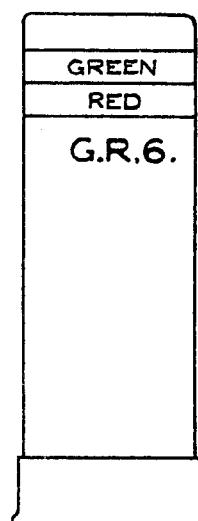
## & MOUTH LABELLING OF CASE.



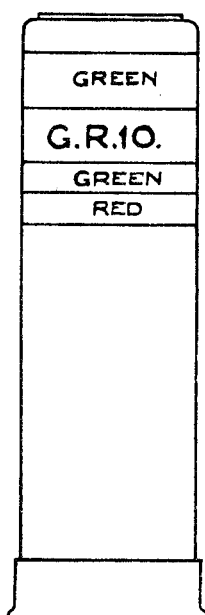
TYPE.4.



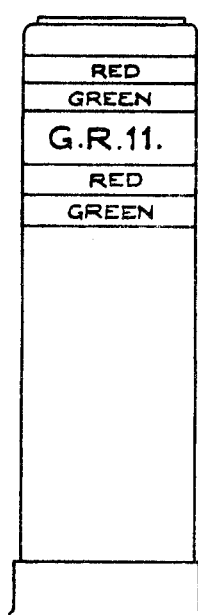
TYPE.5



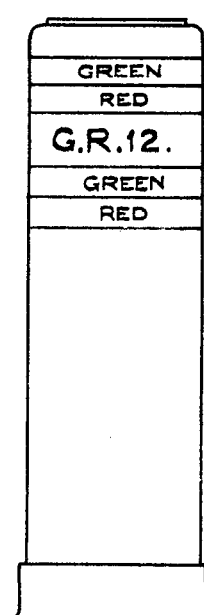
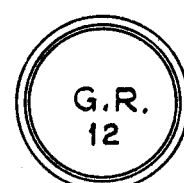
TYPE.6.



TYPE 10.



TYPE 11.



TYPE 12.

LABELLING OF CASE IN BLUE.

# DETAILS OF PACKAGES FOR

95.

CALIBRE.	N° OF PACKAGE.	MATERIAL & TYPE		STOWAGE DIMENSIONS.		
		TYPE	MATERIAL	LENGTH	BREADTH	DEPTH
CARTRIDGE SIGNAL . G.R. 1 1/2" TYPE 1	H. 13.	BOX.	WOOD WITH TINNED PLATE LINING.	17.0	8.5	10.85
" " 2	"	"	"	"	"	"
" " 3	"	"	"	"	"	"
" " 4	"	"	"	"	"	"
" " 5	"	"	"	"	"	"
" " 6	"	"	"	"	"	"
" " 7	"	"	"	"	"	"
" " 8	"	"	"	"	"	"
" " 9	"	"	"	"	"	"
" " 10	"	"	"	"	"	"
" " 11	"	"	"	"	"	"
" " 12	"	"	"	"	"	"
FLARE, AIRCRAFT RECONNAISSANCE TRAINING 4-INCH MK III	B. 282 MK. I	"	"	33.7	15.0	9.625
MARKERS, SEA, ALLUMINIUM.	M. 73 MK. I	"	WOOD	26.5	12.75	8.875.



# VARIOUS PYROTECHNIC STORES.

ESTIMATED WEIGHT LBS		CONTENTS.	DISTINGUISHING MARKINGS. ON BOX.
EMPTY	FILLED		
12	38	48 ROUNDS (EACH IN TUBE PACKING N° 15.)	<p>EACH SIDE OF BOX LABELLED WITH A LARGE DISTINGUISHING LABEL. EACH END OF BOX LABELLED WITH A SMALL DISTINGUISHING LABEL. TOP OF BOX LABELLED WITH A DESCRIPTIVE LABEL, POSITIONED IN RECESS. BOX STAINED GREEN.</p>
"	"	"	
"	"	40 ROUNDS (EACH IN TUBE PACKING N° 16.)	
"	"	40 ROUNDS (EACH IN TUBE PACKING N° 17.)	
"	32 1/2	72 ROUNDS.	
"	"	"	
"	38	"	
"	"	"	
"	"	52 ROUNDS (EACH IN TUBE PACKING N° 18.)	
"	"	"	
"	37	"	
"	"	"	
39 1/2	79 1/2	2 FLARES.	BOX PAINTED BROWN NO SPECIAL MARKING.
22 3/4	43 1/4	2 MK II OR MK III SEA MARKERS.	STENCILLED ON LID. "ALUMINIUM POWDER." DANGEROUS IF NOT KEPT DRY. STOW AWAY FROM ACIDS BOX PAINTED BROWN.

96. Waterproofing of time fuzes.

With reference to No.4 Bulletin, Item 36, the new rubber cover (Cover, Flexible, 2-inch, Time or T. & P. fuzes, No.4, Mk.I) will shortly be available for issue.

Until these are received/<sup>uncovered</sup> fuzes of the No.199 type should be waterproofed with R.D. Composition 1154 whether set at safety or otherwise.

On receipt of rubber covers it will only be necessary to place the rubber cover over the fuze immediately after the brass cover has been removed in order to maintain the waterproof seal. Care should be taken that the cover is a compact fit over the fuze and shoulder of shell with the point of the fuze in the point of the cover. R.D.1154 should not be applied to the fuze when rubber covers are in use as the composition may damage the cover.

97. Batch record sheets.

With reference to the No.4 Bulletin, item 37 (iii), it has been decided to resume the issue of Batch Record Sheets to Coast Defence Commands at Home and Abroad.

On receipt of notification of issue from C.O.O.'s an automatic issue of the relevant Batch Record Sheet will be made by C.I.A. to the Command concerned, Batch Record Sheets for Practice ammunition will not be issued unless specially required, when application to C.I.A. should be made by the C.D. Command concerned.

98. Marking on Ammunition boxes.

In future the fuze particulars on ammunition boxes will, wherever necessary, be shown by the marking F.Z.D..... MK..... followed by the Lot number in the case of fuzes with powder filled time rings.

The former system of marking with fuze symbols is to be discontinued.

99. Cordite charges for practice purposes.

In cases where charges of W or S.C. cordite are issued for practice they should not be used for this purpose if old cordite charges of M.D. or R.D.B. at present under surveillance are available. Every effort should be made to preserve W and S.C. charges for equipment use only.

100. A.A. Ammunition, No. 209 Fuzes.

A number of No.209 fuzes have been reported with damaged mechanisms caused by setting back beyond zero or above the maximum setting of 40 seconds. If this fuze is set beyond 40 seconds or down below zero by more than about half a second the time mechanism is ruined.

To obviate this in future, the following information is issued to all concerned -

(a)/

1 (a) When fuze setters are in use.

The fuze must be at zero before the cartridge is placed in the fuze setting machine. If the fuze is not at zero a false (fuze) setting is obtained and (if the required setting is long) the fuze may be "overset" with consequent damage to the mechanism.

The fuze setter is limited to settings between 0 and 25 and, as it is unlikely that a long time of flight will be required, settings should be limited to 25 seconds for drill purposes.

Fuzes must not be set back to zero in the machine. This operation should be performed by hand using the Service fuze key and watching the graduations, care being taken not to over-run zero.

Fuzes should be checked to see that they are "tight" (screwed well home) in the shell before inserting the cartridge in the fuze setting machine.

Should the machine be out of action temporarily and ready use fuzes set in advance care should be taken to reset these fuzes to zero, by hand, when the machine is again serviceable.

(b) When fuze setters are not available.

The decision as to whether fuzes are to be set in advance or not rests with the higher Command. It should be noted that, from a mechanical point of view, it is immaterial whether the fuzes are set in advance or set at zero. The only point to note is that care is required in all cases of hand setting, not to over-run either end of the scale as this will lead to damaged mechanisms.

- (c) The safety elements in the fuze are not usually affected by damage to the mechanism arising through overrunning either end of the scale, although a case has occurred of the striker being released and falling on the closed leaves of the fuze shutter due to attempting to set the fuze beyond 40 seconds at considerable speed.

101. Time fuzes.

Particular care must be taken of fuzes with covers that are not soldered or rigidly fixed to the body of the fuze. The appropriate key must always be used for screwing these into the shell; the operator's hands must not be used for this purpose. Any displacement of the fuze cover may lead to rapid deterioration of the fuze and/or to the setting of the fuze away from safe.

102. Fuze, Mine, Contact, A.T. No. 3.

With reference to item 84, Bulletin No.9. It is possible for the shearing wire of this fuze to be broken if the mine is dropped 2½-feet on concrete. To draw the safety pin under such conditions will produce immediate detonation of the mine.

To/

To obviate this, the top of the fuze body will, in future manufacture, be formed with a small ring surrounding the striker. The ring will make it impossible to withdraw the safety pin if the shear wire has given way under an accidental drop of the mine.

Note. In Fig.14 of the above Bulletin the position of the shearing wire and safety pin should be reversed. An amendment slip has already been issued to all concerned.

### 103. Disposal of enemy Ammunition.

In item 48 of Bulletin No.5, some notes were circulated dealing with the general principles to be observed when dealing with unexploded enemy bombs dropped by aircraft and it is now proposed to complete the picture by some notes on other types of ammunition.

Enemy ammunition falling into our hands may be classified into two categories -

- (a) Ammunition used by the enemy which has failed to function;
- (b) Ammunition not used by the enemy, taken by capture in situ.

Generally speaking, all ammunition of the former type should be considered as dangerous and be disposed of in the manner laid down in R.A.O.S., Part II, for similar types of ammunition. No attempt should be made to break down such ammunition, unless in exceptional circumstances, as the information obtained is rarely worth the risk involved. Where a specialised squad is available and full safety precautions can be observed, breaking down of unusual types of ammunition for information is, however, permissible.

Unused ammunition captured in situ should not normally be destroyed unless operational considerations require this to be done. Such ammunition is, however, likely to be fitted with booby traps and/or delay explosion arrangements and it may be found necessary to dispose of it at once as a safety measure by demolition. Such captures should invariably be treated with the greatest suspicion and troops should be diverted from the vicinity, as far as possible, consistent with operational requirements

### 104. German small arms ammunition.

Three types of German small arms ammunition are shown in Fig. 18.

These consist of a s.S. cartridge, a S m K cartridge and a S.m K L'spur cartridge.

A complete round consist of a cartridge case, percussion cap, propellant charge and bullet.

The cartridge case may be either brass or steel, copper plated. The brass case is stamped "S\*" on the base, the steel case with an "S" only.

The/

The percussion cap may be either No.88 or No.30. The brass detonator contains detonating composition with a covering cap of lead foil. The No.30 cap differs from the No.88 in having certain components, which in the case of the No.88 cause severe erosion, replaced by others without these disadvantages.

The propellant charge for all cartridges is N.C. in graphite treated flakes.

The bullet is of 7.9 mm. calibre streamlined. For the s.S. cartridge it consists of an envelope drawn from ingot steel, plated with tombak and the core is pressed from hard steel.

The S m K bullet differs from the above in being somewhat longer. It contains a steel core around which is a thin lead jacket. It is specially designed for armour piercing. The S m K L'spur is a tracer bullet. It differs only from the S m K in being shorter and in having a case containing the tracer composition placed behind the steel core. The composition burns green and red or yellow and can be seen up to 900 metres. It is used principally for A.A.

#### Marking.

The annulus of the cap is coloured green for s.S. cartridge and red for S m K or S m K L'spur cartridge. In addition, the point of the tracer bullet is blackened for a short distance from the tip, in the case of the S m K L'spur cartridge.

The base of the case is stamped with the Firm's mark, e.g. "P" = Polte; the mark of the case, e.g. "S"; the delivery number, e.g. 6 = delivery 6, and the year of manufacture, e.g. 31 = 1931.

#### Packing.

This ammunition is packed as follows :-

5 cartridges in a clip.  
3 full clips in one folding box = 15 rounds.  
20 " folding boxes in one case = 300 "  
5 " cases in one cartridge box = 1500 rds.

A cartridge box filled with 1500 rounds weighs about 92½-lbs.

#### 105. German mines and traps.

The attention of I.O.O.'s is drawn to "German Mines and Traps" Field Engineering Pamphlet, No.2, 1940.

#### 106. Addendum to No.9 Bulletin. Item 86, after line 4, add " "A" indicates Cordite Flashless. "

#### Amendments to No. 7 Bulletin.

Item 67, page 4, 6th line from the bottom, for "plus"  
read "plug".

Item 70, page 8, at end of item add :-

"These instructions supersede those contained in existing Handbooks, etc. on this subject, which will be amended in due course."

FIG. 18.

